

WHAT IS CLAIMED IS:

1. A reticle for use in a lithographic process, comprising:
2 a patterned layer located over a reticle substrate; and
3 a test pattern located over said reticle substrate, wherein a
4 portion of said test pattern is within a step-distance of a portion
5 of said patterned layer, a variance in said test pattern being
6 indicative of a variance in said patterned layer.

2. The reticle as recited in Claim 1 wherein said portion of
2 said test pattern is a first portion of said test pattern and said
3 portion of said patterned layer is a first portion of said
4 patterned layer and wherein said first portion of said test pattern
5 is within a step-distance of said first portion of said patterned
6 layer and a second portion of said test pattern is within a step-
7 distance of a second portion of said patterned layer, a variance
8 between said first and second portions of said test pattern being
9 indicative of a variance between said first and second portions of
10 said patterned layer.

3. The reticle as recited in Claim 1 wherein said test
2 pattern includes a reoccurring line/space structure.

4. The reticle as recited in Claim 3 wherein said

2 reoccurring line/space structure has a pitch of less than about $3/2$
3 the wavelength in use.

5. The reticle as recited in Claim 1 wherein said test
2 pattern has a length greater than said step-distance.

6. The reticle as recited in Claim 1 wherein said test
2 pattern is located inside a pellicle frame of said reticle.

7. The reticle as recited in Claim 1 wherein said test
2 pattern is located in a scribe region defined by said patterned
3 layer.

8. The reticle as recited in Claim 1 wherein said variance
2 is a systematic variance in critical dimension (CD) in said
3 patterned layer.

9. A method for monitoring critical dimension (CD)
2 variations of a reticle, comprising:
3 providing a reticle, said reticle including;
4 a patterned layer located over a reticle substrate; and
5 a test pattern located over said reticle substrate,
6 wherein a portion of said test pattern is within a step-distance of
7 a portion of said patterned layer, a variance in said test pattern
8 being indicative of a variance in said patterned layer;
9 patterning a material using said reticle; and
10 visually inspecting said material for light and dark regions,
11 said light and dark regions representing said variance in said
12 patterned layer.

10. The method as recited in Claim 9 wherein said portion of
2 said test pattern is a first portion of said test pattern and said
3 portion of said patterned layer is a first portion of said
4 patterned layer and wherein said first portion of said test pattern
5 is within a step-distance of said first portion of said patterned
6 layer and a second portion of said test pattern is within a step-
7 distance of a second portion of said patterned layer, a variance
8 between said first and second portions of said test pattern being
9 indicative of a variance between said first and second portions of
10 said patterned layer.

11. The method as recited in Claim 9 wherein said test
2 pattern creates a reflective grating in said patterned material,
3 and said reflective grating is configured to provide said light and
4 dark regions if said variance in said patterned layer exists.

12. The method as recited in Claim 11 wherein said reflective
2 grating includes a reoccurring line/space structure.

13. The method as recited in Claim 12 wherein said
2 reoccurring line/space structure has a pitch of less than about $3/2$
3 the wavelength in use.

14. The method as recited in Claim 9 wherein said test
2 pattern is located in a scribe region defined by said patterned
3 layer.

15. The method as recited in Claim 9 wherein said variance is
2 a systematic variance in critical dimension (CD) in said patterned
3 layer.

16. The method as recited in Claim 9 wherein visually
2 inspecting said material includes visually inspecting said material
3 using an optical microscope.

17. The method as recited in Claim 16, further including
2 changing a focus on said optical microscope to cause said light and
3 dark regions to become more or less pronounced.

18. A method for making a semiconductor device, comprising:

2 patterning a resist material using a reticle, wherein said
3 reticle includes;

4 a patterned layer located over a reticle substrate; and

5 a test pattern located over said reticle substrate,

6 wherein a portion of said test pattern is within a step-distance of
7 a portion of said patterned layer, a variance in said test pattern
8 being indicative of a variance in said patterned layer; and

9 using said patterned resist material to form a feature of a
10 semiconductor device.

19. The method as recited in Claim 18 further including

2 visually inspecting said patterned resist material for light and
3 dark regions prior to said using said patterned resist material,
4 said light and dark regions representing a systematic variance in
5 critical dimension (CD) in said patterned resist material.

20. The method as recited in Claim 18 wherein said patterned

2 resist material is used to form multiple features, and wherein said
3 multiple features are electrically contacted to form an operational
4 integrated circuit.